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APPLICATION NO. FILING DATE		NG DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.		CONFIRMATION NO.
09/487,718	01/	/19/2000	Mitsuaki Amemiya	35.C14183 . ·		3490
·5514	7590	09/20/2002				
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				EXAMINER KUNEMUND, ROBERT M		
					1765	
				DATE MAILED: 09/20/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)

6) Other:

4) Interview Summary (PTO-413) Paper No(s). _

Notice of Informal Patent Application (PTO-152)

The Rejections

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 58 to 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. in view of Mizugaki et al.

The Kennedy et al reference teaches a method of crystal growth. In a furnace, a crucible of melt is formed and then the crucible is moved so as to create a crystalline growth front and crystallize the melt into a single crystal. There is a plurality of temperature measurements taken during the growth by thermocouples. The information is then fed to a control loop system to control temperatures and growth in the furnace, note entire reference. The sole difference between the instant claims and the prior art is the growth of fluorides.

However, the Mizugaki et al reference teaches Bridgeman growth of fluorides to create crystals, note, col. 2. It would have been obvious to one of ordinary skill in the art to modify the Kennedy et al process by the teachings of the Mizugaki et al reference to grow fluorides in order to obtain large crystalline fluorides.

Response to Applicants' Arguments

Applicant's arguments filed June 13, 2002 have been fully considered but they are not persuasive.

Applicants' argument concerning the combination of references has been considered and not deemed persuasive. The Kennedy reference does teach the liquid-solid interface that is instantly claimed. The specification teaches the upward convex interface to obtain the temperature levels. Further, it would have been obvious to combine references as one of ordinary skill in the art would clearly see the advantages of controlling the growth process, better crystal quality. Also, one of ordinary skill in the art would use materials in the process that can handle the growth parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M Kunemund whose telephone number is 703-308-1091. The examiner can normally be reached on 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on 703-308-3636. The fax

phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

RMK September 18, 2002

ROBERT KUNEMUND PRIMARY EXAMINER